



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
COLORADO STATE OFFICE
2850 YOUNGFIELD STREET
LAKEWOOD, COLORADO 80215-7076



In Reply Refer To:
CO-922
3100

NOV 5 1991

Dear Reader:

Enclosed is a copy of the Record of Decision for the Oil and Gas Plan Amendment to the Little Snake Resource Management Plan/Environmental Impact Statement. The decisions contained in the amendment are those analyzed in the "Colorado Oil and Gas Leasing and Development Final Environmental Impact Statement," published January 1991.

The Little Snake Oil and Gas Amendment was conducted jointly with Glenwood Springs, Kremmling, the Northeast Planning Areas, and San Juan/San Miguel Planning Areas in the Draft and Final Plan Amendment/EIS. However, the Records of Decision and approved amendments are produced separately to facilitate local use.

The approved amendment now becomes the basic guide for management of oil and gas resources on 1,878,000 acres of public land administered by the Bureau of Land Management in northwest Colorado.

We are pleased to provide this copy for your reference and appreciate your cooperation and participation during the planning process.

Sincerely,

H. Robert Moore
State Director

*Little Snake
1991 Oil &
Gas Amendment
R.O.D*

Enclosure

Record of Decision

Little Snake Resource Management Plan

DECISION

The decision is made to approve the amendment to the oil and gas element of the Resource Management Plan (RMP) for the Little Snake Resource Area (LSRA) as described in the Proposed Action Alternative of the "Colorado Oil and Gas Leasing and Development Final Environmental Impact Statement," January 1991. The decisions contained in this Record supersede those for oil and gas leasing and development in the Little Snake RMP. This amendment was prepared under the regulations for implementing the Federal Land Policy and Management Act (FLPMA) of 1976 (43 CFR 1600). An environmental impact statement (EIS) was prepared for this plan amendment in compliance with the National Environmental Policy Act (NEPA) of 1969. The decisions contained in this amendment are the same as those analyzed in the proposed action of the final EIS published by the BLM in January 1991. Correction of editorial errors are shown in the "ERRATA" sheet (Appendix C) at the end of this document.

The amendment modifies the oil and gas leasing decisions that were made in the original RMP and Record of Decision, signed in April, 1989. These new decisions will be implemented in the form of lease stipulations, lease notices, and conditions of approval for subsequent field operations on all new leases. The decisions will also be implemented on new operations on existing leases as conditions of approval where those conditions do not adversely affect lease rights already granted.

The major decisions contained in this amendment are:

- 1,878,000 acres of BLM-administered mineral estate within the Little Snake Resource Area are open to oil and gas leasing and development, subject to the lease terms and (as applicable) lease stipulations noted in Appendix A of this document.
- 35,380 acres of BLM-administered mineral estate within the Little Snake Resource Area are closed to oil and gas leasing and development.
- Cross Mountain Canyon Area of Critical Environmental Concern (ACEC) and Limestone Ridge ACEC/Research Natural Area will be protected by a No Surface Occupancy stipulation. Irish Canyon and Lookout Mountain ACECs will be protected with a Controlled Surface Use stipulation on oil and gas leases (22,530 acres).
- Important wildlife habitat will be protected with the use of No Surface Occupancy, Timing Limitation, or Controlled Surface Use stipulations and/or Lease Notices on oil and gas leases, and Conditions of Approval on permits.

ALTERNATIVES

Three alternatives were considered in the development of this plan amendment: Continuation of Present Management, Standard Terms and Conditions, and the Proposed Action. These alternatives were described and analyzed in both the Draft and Final EIS.

The Continuation of Present Management alternative analyzed leasing oil and gas utilizing Standard Terms and Conditions and the stipulations currently in use. This alternative represents the "no action alternative," that is, what we think would have occurred had it been decided not to amend the Resource Management Plan.

The Standard Terms and Conditions alternative analyzed leasing oil and gas utilizing only the Standard Terms and Conditions that are required by regulation to be applied to all federal leases. This alternative is potentially the least restrictive that BLM could implement. However, in certain localized areas, it may be more restrictive because managers often decide to not lease areas containing sensitive resources rather than to lease them without protective stipulations.

The Proposed Action alternative analyzed leasing oil and gas utilizing Standard Terms and Conditions and additional leasing stipulations to further protect resources and values. The Proposed Action contains the management prescriptions that local managers believe to be the best balance of past practices, and new prescriptions. This alternative is considered to be environmentally preferred and it has been selected to amend the Little Snake RMP.

MANAGEMENT CONSIDERATIONS

This decision was influenced by statutory, legal, and national policy considerations. The resource area was evaluated for the potential for oil and gas production as well as the presence of sensitive natural resources. New information was obtained on the effects that surface-disturbing activities have on various wildlife species and these findings were used to develop new protective measures. The constraints on oil and gas leasing and development were then reviewed in light of the potential. Wherever possible, major conflicts were resolved to provide for a balance between sensitive natural resource protection and oil and gas development. Finally,

proposed constraints were evaluated against the authority granted to the BLM to protect sensitive natural resources in the "Granting Clause" and section 6 of the standard lease terms. In those cases where the standard lease terms provided the same resource protection, the proposed constraints were not carried forward from the Draft EIS to the Final EIS in order to avoid unnecessary duplication. In those cases where the standard lease terms did not provide adequate protection, the proposed constraints were carried forward into the decision.

MITIGATION

The plan amendment has been designed to avoid or minimize environmental impacts where practical. Specific mitigation measures are described in Chapter 2 of this document.

MONITORING

The original Record of Decision (June, 1989) contains a monitoring and evaluation plan. This plan will be used to determine the effectiveness of the mitigation practices and the accuracy of the impact predictions.

PUBLIC INVOLVEMENT

The public was involved throughout the entire planning process. A Notice of Intent to Amend the RMP was published in the *Federal Register* on March 13, 1989. Public scoping meetings were held during the 30-day comment period in Walden, Craig, Glenwood Springs, Durango, and Denver, Colorado. Numerous meetings were held with various interest groups. Interested local, state, and federal agencies were contacted and coordination was pursued throughout the process. Public review of the Draft EIS was conducted over a 90-day period, between May 18 and August 17, 1990. Public meetings were held in Craig, Grand Junction, Durango, and Denver, Colorado, to receive comments and additional public input. A 30-day public protest period was held in conjunction with a 60-day

Governor's consistency review after the Final EIS was published in January 1991.

During the protest period, three protests were received by the BLM's Director. One protest, filed by John T. Broderick, did not qualify for administrative review. A protest was filed by the Colorado Environmental Coalition and after a review of the issues raised in the protest, the BLM's Director determined that no change to the amendment would be made. Finally, a protest was filed by the Colorado Chapter of the Wildlife Society. This protest concerned changes to lease stipulations regarding compensation for impacts to crucial wildlife habitat, protection of sage grouse, and protection of riparian habitat. The Director found that an appropriate level of protection was provided in the plan amendment for all three of the above-described issues and that no change to the content of the amendment would be made. The following features have been included in this document to clarify the leasing decisions made in the Final EIS and incorporated in this decision:

(1) a list of approved lease stipulations and a discussion of conditions of approval;

(2) for the proposed action, a list of lease stipulations and COAs that were originally proposed in the Draft EIS and either changed or deleted in the proposed action of the final EIS;

(3) a rationale for such changes;

(4) an errata sheet correcting the inadvertent editorial errors found in the final EIS.

Point 1 can be found in Appendix A. Points 2 and 3 can be found in Appendix B. Finally, point 4 can be found in Appendix C.

CONSISTENCY

The plan amendment is consistent with plans, programs, and policies of the local and state governments and of other federal agencies.

PUBLIC AVAILABILITY OF THE PLAN

Copies of the plan amendment are available from any BLM office in the State of Colorado.

11/5/91
Date

Tom Walker
Colorado State Director
Bureau of Land Management

TABLE OF CONTENTS

| | |
|--|----|
| Chapter 1. Purpose and Need | 7 |
| Chapter 2. Resource Management Decisions | 11 |
| Appendix A. Leasing Stipulations and Notices | 17 |
| Appendix B. Changes Made to Leasing Stipulations Between Draft and Final Plan Amendment/EIS | 25 |
| Appendix C. Errata Sheet | 29 |

TABLES

| | |
|---|----|
| Table 1. Wilderness Study Areas | 12 |
| Table 2. Proposed Action—No Surface Occupancy | 12 |

MAPS

| | |
|--|----|
| Map 1. EIS Study Area | 8 |
| Map 2. No Leasing and No Surface Occupancy Areas | 13 |
| Map 3. Timing Limitation Areas | 14 |
| Map 4. Controlled Surface Use Areas | 15 |

CHAPTER ONE

PURPOSE AND NEED

The BLM, as agent for the Secretary of the Interior, has responsibility for leasing and managing the oil and gas resource where the mineral estate is federally owned. This is referred to as the federal mineral estate. For many years, concern has been expressed that BLM's oil and gas leasing process may not adequately comply with the National Environmental Policy Act (NEPA) requirements to analyze and disclose the cumulative impacts of oil and gas activities. During the last few years, conflicting court decisions have resulted in uncertainty. To resolve this issue, BLM officials consulted with representatives of environmental groups and the oil and gas industry to help revise BLM's environmental analysis standards for oil and gas leasing decisions which are made in the Resource Management Plan (RMP). This resulted in issuance of a new BLM manual guidance during the fall of 1987 titled, *Supplemental Program Guidance for Fluid Minerals*. At the time this guidance was issued, BLM within Colorado had six RMPs near completion or completed. To achieve compliance with the new standards in a reasonable time frame, it was decided to amend five of the six RMPs, including Little Snake Resource Area. The sixth Area is preparing a new RMP, for other reasons, that will incorporate the new standards.

The leasing decisions described in the RMP/EIS will be revised to conform to the policies and conditions of this decision. The most significant change is to incorporate, in a more systematic manner, a cumulative impact analysis which is based on a reasonable foreseeable estimate of future oil and gas activity. This requirement is described in BLM Manual section 1624.2.

For more than 100 years, it has been federal policy to make lands available for mineral exploration and development. The Arab oil embargo of the early 1970s emphasized the desirability of reducing U.S. dependence on imported oil. Although the federal mineral estate, known reserves, and existing production of oil and gas within the areas depicted in this EIS represent only a small proportion of the U.S. total production, reserves, and owned mineral estate, it is nonetheless an important resource. This is especially true to Colorado. Development of the oil and gas resource has historically been an integral part of the state and local economies in Colorado. Although the rate of development has declined in recent years, it is expected to continue to be an important economic factor, affecting state and local communities and the Rocky Mountain Region.

DESCRIPTION OF THE AREA

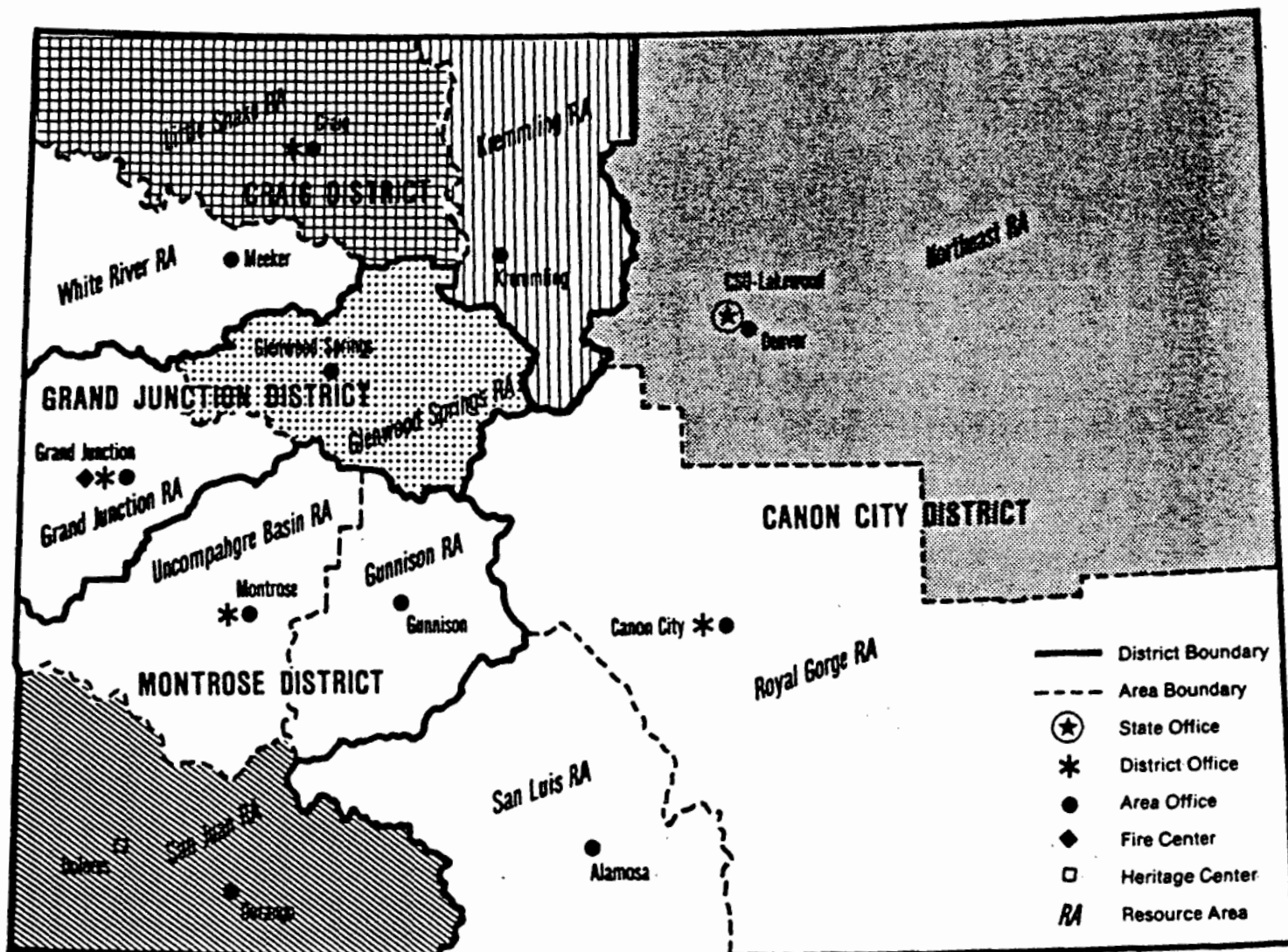
See description in the original Little Snake RMP and Map 1 in this document.

IMPLEMENTATION

This amendment will be implemented upon approval by the State Director. The new leasing stipulations will be attached to oil and gas leases beginning with the first sale after plan implementation (i.e., ROD signing).

MONITORING

This plan amendment will be monitored in accordance with the monitoring plan in the original RMP.



Map 1
EIS STUDY AREA

MAINTENANCE

Changes may be made to the Plan without additional public involvement only if they are not significant. This category of plan change is called "plan maintenance." Definitions and procedures for plan maintenance are contained in the BLM planning regulations. Examples of plan maintenance include updating inventories of resources to be protected, so long as the new inventory does not change the need for, or level of, protection required by the plan.

One example of maintenance might be the expansion of acreage covered by a wildlife stipulation based on a new inventory. That kind of maintenance would only be done when the Authorized Officer determined that no new leasing restriction was required to protect the additional acreage and that the imposition of the restriction on the addition would not impact oil and gas development more than predicted in the RMP.

AMENDMENTS AND REVISIONS

The Plan Amendment may be amended or revised if major changes are necessary. Monitoring and evaluation findings, new data, new or revised policy, or a proposed action resulting in a change in scope, terms, or conditions of the plan would warrant an amendment or revision. An amendment will be analyzed either in an environmental assessment or an environmental impact statement. The public and other agencies will be included in the amendment and revision processes.

An example of a decision requiring plan amendment would be to convert a No Surface Occupancy stipulation to a Timing Limitation stipulation of four months. To make such a decision, the Authorized Officer would have to evaluate the impacts resulting from oil and gas

development during certain times of the year in an area where the RMP originally analyzed the impacts of no development at all.

Note that this decision is different than one an Authorized Officer might make on a one-time basis to exempt a particular operation from a NSO stipulation based on criteria analyzed in the RMP (See the discussion of waiver, exception, and modification of leasing stipulations in the Final EIS).

VALID EXISTING RIGHTS

The Plan Amendment does not repeal valid existing rights on public lands. Valid existing rights take precedence over the actions in this plan. As an example, a lease issued prior to this plan having no timing limitation stipulation would not be restricted by decisions in this plan unless the lessee agrees voluntarily or the restriction can be made compatible with the lease terms issued. Valid existing rights may be held by other federal agencies or by private individuals or companies.

CHAPTER TWO

RESOURCE MANAGEMENT DECISIONS

OBJECTIVES

Facilitate orderly, economic, and environmentally-sound exploration and development oil and gas resources using balanced multiple-use management.

DECISIONS

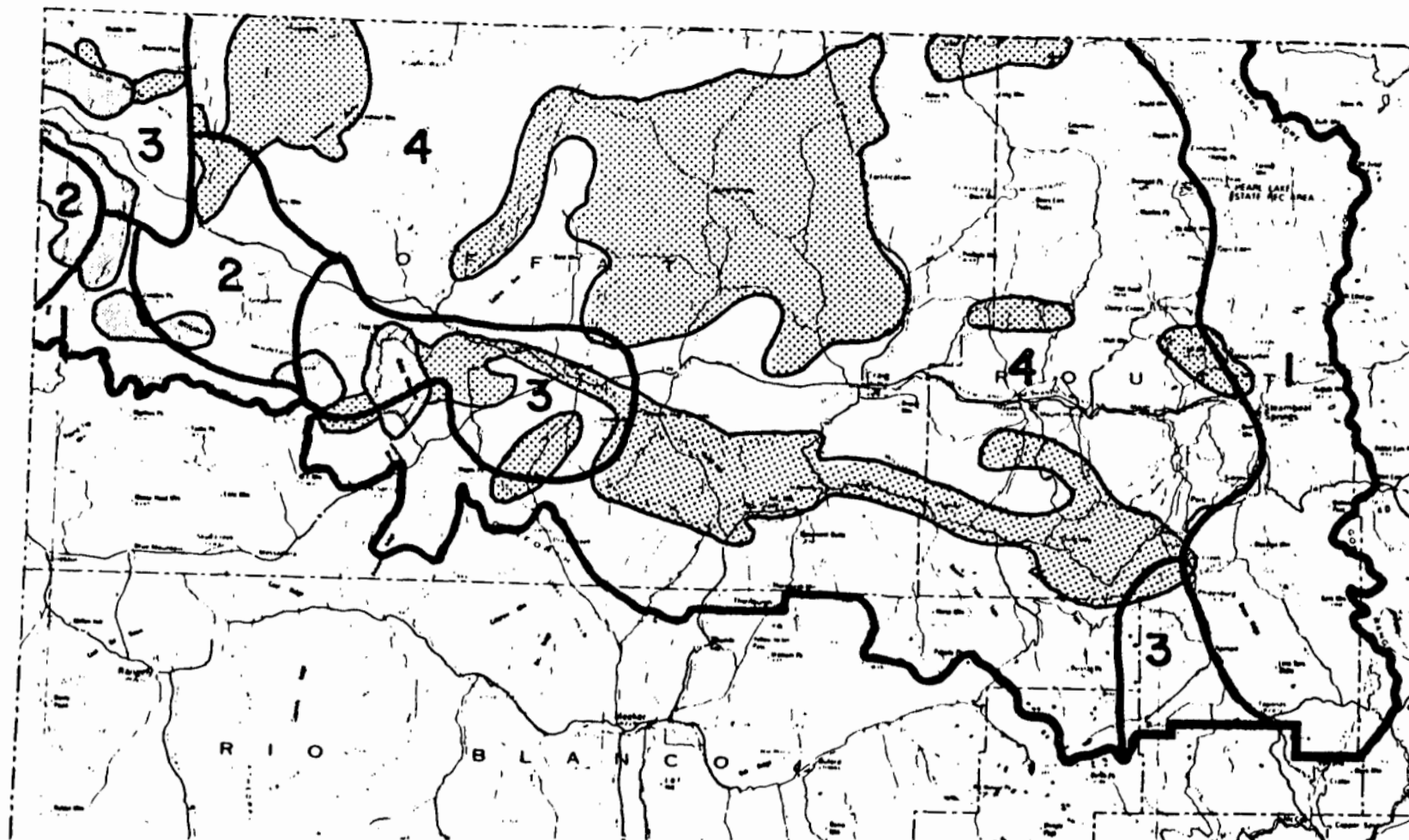
- The Cross Mountain, Diamond Breaks, West Cold Spring, Ant Hills, Chew Winter Camp, Peterson Draw, and Vale of Tears Wilderness Study Areas will not be leased. This is 35,280 acres of BLM-administered mineral estate within the Little Snake Resource Area (see Map 2 and Table 1).
- 1,878,000 acres of BLM-administered mineral estate within the Little Snake Resource Area are open to oil and gas leasing and development, subject to the lease terms and (as applicable) lease stipulations noted in Appendix A of this document.
- No Surface Occupancy stipulations will be used to protect Cross Mountain and Limestone Ridge Areas of Critical Environmental Concern (ACEC); Little Yampa/Juniper Canyon, Cedar Mountain Special Recreation Management Areas; Steamboat Lake and Pearl Lake State Parks; coal mines where development would be incompatible with the planned coal extraction; grouse, raptor, bald eagle, peregrine falcon, Mexican spotted owl, waterfowl and shorebird nests; and special status plant species (see Map 2, Table 2, and Appendix A).
- Timing Limitation stipulations will be used to protect crucial habitat, birthing, fledgling, and nesting areas (see Map 3 and Appendix A).
- Controlled Surface Use stipulations will be used to protect coal mines where the mining method or location is such that location of subsequent wells can avoid significant conflicts, fragile soil areas, steep slopes, riparian/wetland vegetation, and Irish Canyon, and Lookout Mountain ACECs (see Map 4 and Appendix A).
- Lease Notices will be used to alert lessees to special requirements for paleontological areas, sage grouse nests, sensitive species areas, sheep lambing grounds, and prairie dog complexes (see Appendix A).
- Conditions of Approval will be applied to operational approvals (Applications for Permit to Drill and Sundry Notices) as determined necessary by the Authorized Officer to protect other resources and values within the terms, conditions, and stipulations of the lease contract. A list of the most common Conditions of Approval is found in Appendices D and F of the Final Plan Amendment/EIS.
- Further details of these decisions are provided in the Final Plan Amendment/EIS. All leasing stipulations referred to above and included in this decision are provided in Appendix A.

TABLE 1. WILDERNESS STUDY AREAS

| Location | WSA Name | Size (acres) | Recommendation |
|----------------------------|------------------|--------------|----------------|
| Little Snake Resource Area | Cross Mountain | 14.081 | Suitable |
| | Diamond Breaks | 31.480 | Suitable |
| | West Cold Spring | 17.682 | Non-Suitable |
| | Ant Hills | 4.354 | Non-Suitable |
| | Chew Winter Camp | 1.320 | Non-Suitable |
| | Peterson Draw | 5.160 | Non-Suitable |
| | Vale of Tears | 7.420 | Non-Suitable |
| | Totals | 45.561 | Suitable |
| | | 35.936 | Non-Suitable |
| | | 81.497 | |

TABLE 2. PROPOSED ACTION--NO SURFACE OCCUPANCY

| | ACRES |
|--------------------------------------|--------|
| LSRA | |
| Sage Grouse Lek | 2,400 |
| Raptor Nests | 28,560 |
| Peregrine Falcon Nest | 40 |
| Bald Eagle Roost | 1,200 |
| Sand Hill Crane Habitat | 240 |
| Little Yampa SRMA | 19,840 |
| Cedar Mt. SRMA | 880 |
| Steamboat and Pearl Lake State Parks | 384 |
| Cross Mountain Canyon ACEC | 3,000 |
| Limestone Ridge ACEC | 1,350 |



LITTLE SNAKE RESOURCE AREA

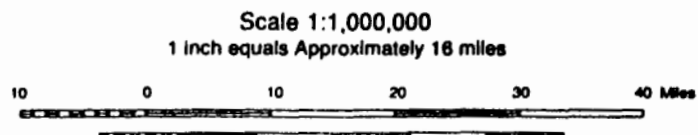
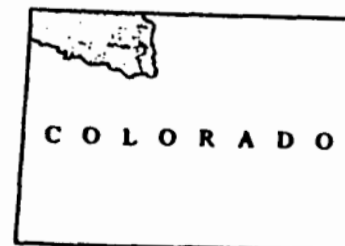
Resource Area Boundary

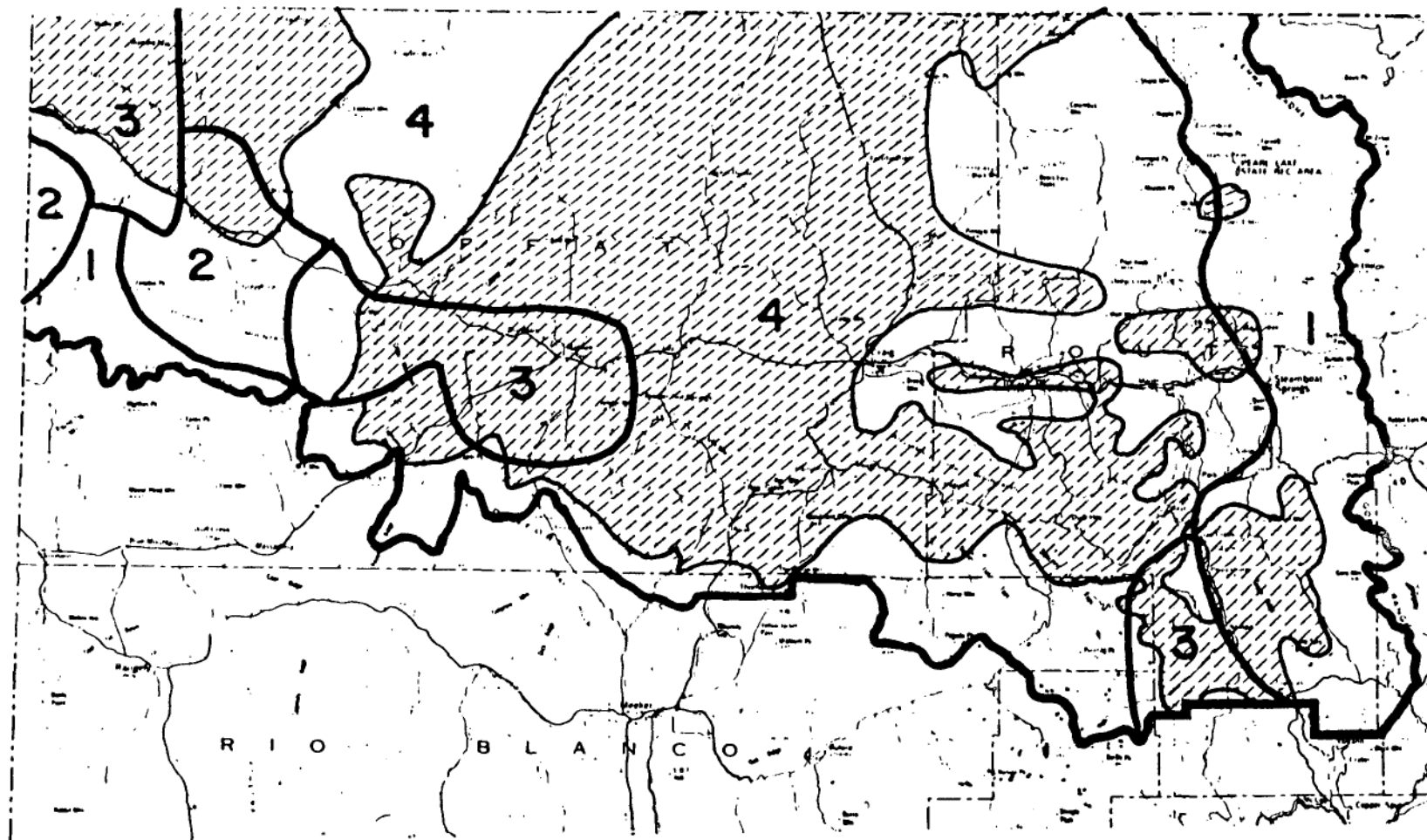
No Leasing

No Surface Occupancy

Oil and Gas Potential

- 1 - None
- 2 - Low
- 3 - Moderate
- 4 - High





LITTLE SNAKE RESOURCE AREA

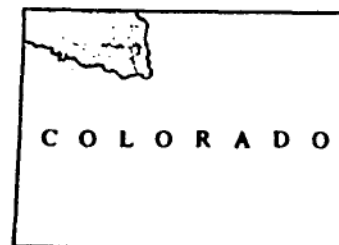
Resource Area Boundary



Timing Limitations

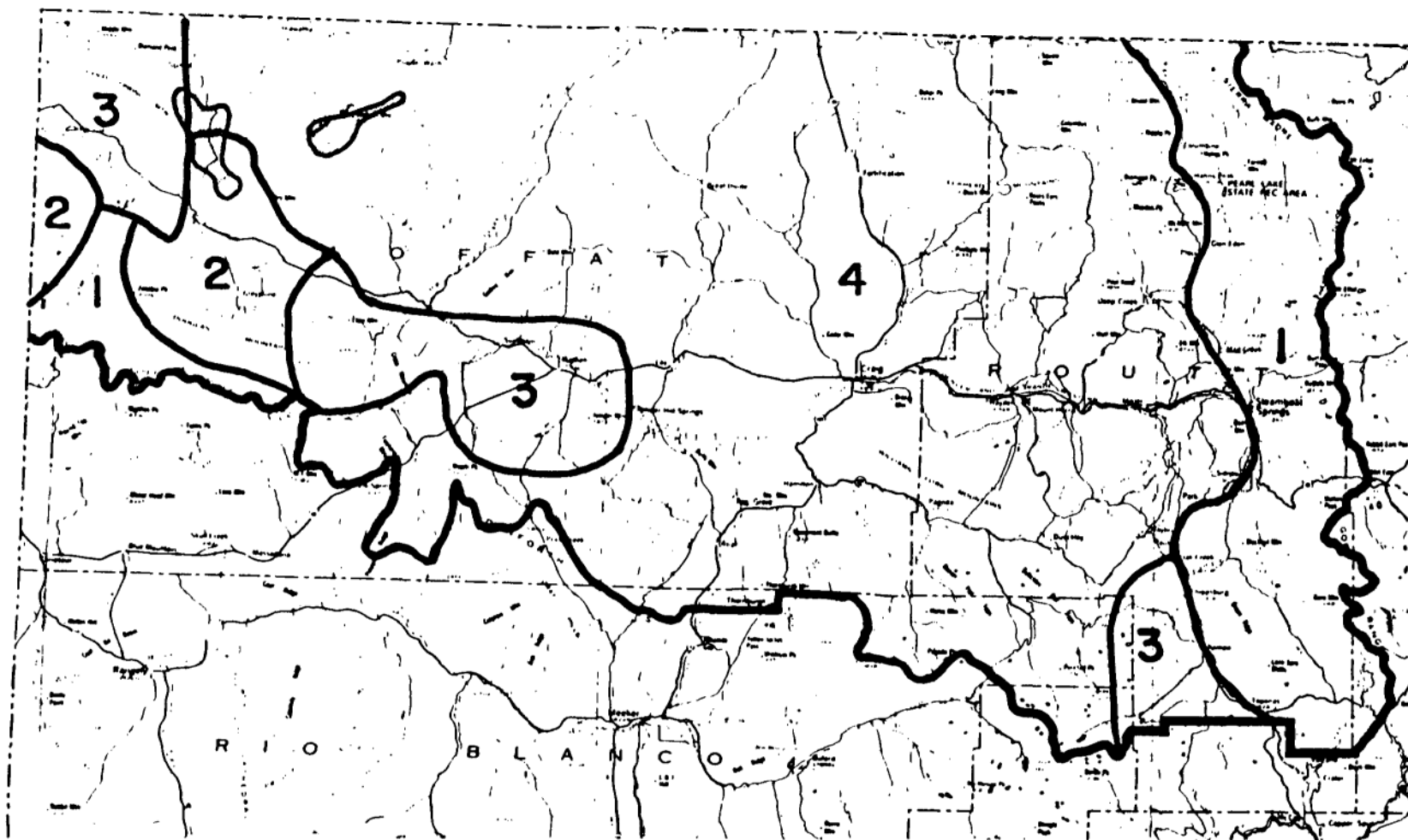
Oil and Gas Potential

- 1 - None
- 2 - Low
- 3 - Moderate
- 4 - High





Scale 1:1,000,000
1 inch equals Approximately 16 miles

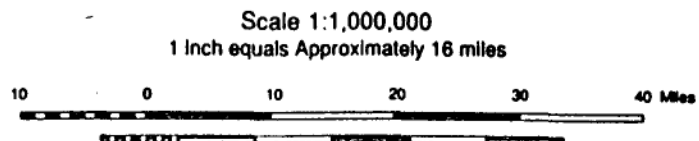
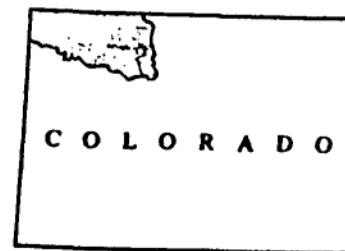




LITTLE SNAKE RESOURCE AREA

-  Resource Area Boundary
 Controlled Surface Use

- Oil and Gas Potential
- 1 - None
 - 2 - Low
 - 3 - Moderate
 - 4 - High



APPENDIX A

Leasing Stipulations, Notices, and "No Lease" Areas and Conditions of Approval for Permits

No Surface Occupancy

1. [Stip. Code: CO-01] No Surface Occupancy (NSO) would be allowed on leases within the area of federally leased coal lands where oil and gas development would likely be incompatible with coal extraction. This stipulation may be waived without a plan amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: (1)(a) well must be plugged when the mine approaches within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator, or (2) relocate well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered for the oil and gas lease only when a well is drilled and later plugged, and a new well or re-entry is planned when the mine moves through the location.

2. [Stip. Code: CO-2] Grouse (includes sage grouse, mountain sharp-tailed, lesser and greater prairie chickens). NSO within one-quarter mile radius of a lek site (courtship area).

Exception for grouse leks. The NSO area may be altered depending upon the active status of the lek or the geographical relationship of topographical barriers and vegetation screening to the lek site.

3. [Stip. Code: CO-3] Raptors (includes golden eagle, osprey, all accipiters, falcons, except kestrel, butteos, and owls). Raptors that are listed and protected by the Endangered Species Act are addressed separately. NSO within one-eighth mile radius of nest site.

Exception for raptor nest site. The NSO area may be altered depending on the active status of the nest site or the geographical relationship of topographic barriers and vegetation screening to the nest site.

4. [Stip. Code: CO-4] Bald Eagle NSO within one-quarter mile radius of the roost or nest site.

Exception for bald eagle roost site. The NSO applies to the essential features of the winter roost site complex. The NSO area may be altered depending on the active status of the roost or the geographical relationship of topographic barriers and vegetation screening.

There are no exceptions currently identified.

5. [Stip. Code: CO-5] Peregrine Falcon NSO within one-quarter mile radius of cliff nesting complex.

There are no exceptions currently identified.

6. [Stip. Code: CO-6] Mexican Spotted Owl NSO within one-quarter mile radius of the confirmed roost site and nesting site.

There are no exceptions currently identified.

7. [Stip. Code: CO-7] Waterfowl and Shore-bird NSO on significant production areas. (Major areas are Waterfowl Habitat Management Areas and rookeries.)

There are no exceptions currently identified.

8. [Stip. Code: CO-8] NSO on habitat areas with special status plant species (Includes federally listed and proposed species for listing and candidate species.)

Exception for special status plant species habitat. The NSO may be altered after important factors are considered in the impact analysis such as the type and amount of surface disturbance, plant frequency and density, and the relocation of disturbances.

9. [Stip. Code: LS-1] Limestone Ridge ACEC: Protection of remnant plant associations and sensitive plant species, and scenic values.

There are no exceptions currently identified.

10. [Stip. Code: LS-2] Cross Mountain Canyon ACEC: Protection of sensitive plants, endangered species, scenic and recreational values.

There are no exceptions currently identified.

11. [Stip. Code: LS-3] Little Yampa/Juniper Canyon SRMA: Protection of flatwater boating opportunities and scenic values.

There are no exceptions currently identified.

12. [Stip. Code: LS-4] Cedar Mountain SRMA: Protection of recreational and educational opportunities, and scenic values.

There are no exceptions currently identified.

13. [Stip. Code: LS-5] Steamboat Lake State Park: Protection of recreational and scenic values.

There are no exceptions currently identified.

14. [Stip. Code: LS-6] Pearl Lake State Park: Protection of recreational and scenic values.

There are no exceptions currently identified.

Timing Limitation Stipulations

1. [Stip. Code: CO-9] Big game species (includes species of mule deer, elk, pronghorn antelope, and bighorn sheep). Note: Crucial winter habitat includes severe big game winter range or other definable winter ranges as mapped by the Colorado Division of Wildlife.

Big Game Crucial Winter Habitat - December 1 to April 30

Exception for big game crucial winter habitat. Under mild winter conditions, the last 60 days of the seasonal limitation period may be suspended. Severity of the winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the crucial winter range during the winter months.

Exception for big game crucial winter habitat. This limitation may or may not apply to work requiring a Sundry Notice pending environmental analysis of any operational or production aspects.

2. Big Game Birthing Areas: (by species)

a. Elk calving - April 16 to June 30 [Stip Code: CO-10]

b. Pronghorn Antelope fawning - May 1 to July 15 [Stip. Code: CO-11]

c. Rocky Mountain Bighorn Sheep Lambing - May 1 to July 15 [Stip. Code: CO-12]

d. Desert Bighorn Sheep Lambing - March 16 to May 30 [Stip. Code: CO-14]

Exception for Big Game Birthing Areas. When it is determined through a site-specific environmental analysis that specific actions would not interfere with critical habitat function or compromise animal condition within the project vicinity, the restriction may be altered or removed.

3. [Stip. Code: CO-15] Grouse (includes sage grouse, mountain sharp-tailed, and lesser and greater prairie chickens)

Sage grouse crucial winter habitat - December 16 to March 15

There are no exceptions currently identified.

4. [Stip. Code: CO-16] Greater Sandhill Crane nesting and staging habitat areas - March 1 to October 16

There are no exceptions currently identified.

5. [Stip. Code: CO-17] White Pelican nesting and feeding habitat areas - March 16 to September 30

There are no exceptions currently identified.

6. [Stip. Code: CO-18] Raptor nesting and fledgling habitat (includes the golden eagle and all accipiters, falcons, except the kestrels*, all butteos, and owls [except Mexican spotted owls, see Stipulation CO-21, below]) - February 1 to August 15. Raptors that are listed and protected by the Endangered Species Act are addressed separately.

This seasonal limitation applies to a one-quarter mile buffer zone around the nest site.

* Kestrels are very adaptable to nest in a variety of habitats and their populations are stable and widespread.

7. [Stip. Code: CO-19] Ferruginous Hawk nesting and fledgling habitat - February 1 to August 15. The sensitivity of the ferruginous

hawk to human-associated disturbance activities requires a one-mile buffer zone to avoid nest abandonment.

8. [Stip. Code: CO-20] Osprey nesting and fledgling habitat - April 1 to August 31. The sensitivity of osprey to human-associated disturbance activities requires a half-mile buffer zone to avoid nest abandonment.

Exception for raptors, ferruginous hawks, and ospreys (#'s 6., 7., and 8., above) nesting habitat. During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

9. [Stip. Code: CO-21] Mexican Spotted Owl nesting and fledgling habitat - February 1 to July 31.

The Mexican spotted owl has been petitioned for listing as a threatened or endangered species to U.S. Fish and Wildlife Service. Subject to the petition determination, the following habitat management guidelines and restrictions will be used to protect the Mexican spotted owl. These guidelines are adopted from the interim timber harvest management guidelines issued by the Forest Service, Southwest Region (*Federal Register*, Vol. 54, No. 124, June 29, 1989).

Mexican spotted owl habitat is restricted by use of a timing limitation applied to core areas within the owl habitat territory. The territories are by definition of two types: (1) territory in which an owl(s) has been spotted, but no nests or roosts have been confirmed, and (2) territory in which there is confirmed nesting, feeding, and roosting activity. The territory of a Mexican spotted owl is thought to be about 2,000 acres and does not overlap with another individual's (or pair's) territory. Within the territory is a core area of 450 acres where there have been sightings only (#1, above), or 1,480 acres where there are confirmed nests and/or roosts (#2,

above). The timing restriction from February 1 to July 31 is applied to the core areas (450 or 1,480 acres). A proposed oil and gas operation within the remainder of the territory (2,000 acres minus 450 or 1,480 acres) will be analyzed prior to permit approval and mitigated for compatibility with the owl habitat.

There are no exceptions currently identified.

10. [Stip. Code: CO-22] Bald Eagle Nesting Habitat - December 15 to June 15

Restriction for bald eagle courtship behavior and nesting habitat. This time period is extremely sensitive to human-disturbance activities and may cause nest abandonment and desertion of long established territories. A one-half mile buffer zone around the nest site is required to prevent disruption of nesting.

Exception for bald eagle nesting habitat. During years when a nest site is unoccupied by or after May 15, the timing limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

11. [Stip. Code: CO-23] Winter Roost Site - November 16 to April 15. Restriction for bald eagle winter roost site.

The sensitivity of bald eagles to human-disturbance activities requires a one-half mile buffer area around the roost site to avoid relocation to less suitable areas.

Exception for winter roost habitat. If there is partial or complete visual screening of the area of activity, the primary zone around the roost site may be reduced to one-quarter mile.

12. [Stip. Code: CO-24] Peregrine Falcon Cliff Nesting Complex - March 16 to July 31

Restriction for peregrine falcon cliff nesting complex. The sensitivity of peregrine falcon to human-disturbance activities requires a half-mile buffer area around the nesting complex to pre-

vent abandonment and desertion of established territories.

The following exception would apply only after formal Section 7 Consultation with the U.S. Fish and Wildlife Service was consummated.

Exception for nesting habitat. During years when a nest site is unoccupied or unoccupied by or after May 15, the seasonal limitation may be suspended. It may also be suspended once the young have fledged and dispersed from the nest.

13. [Stip. Code: LS-7] Isolated and/or Roadless Areas: August 16 to November 14.

There are no exceptions currently identified.

14. [Stip. Code: LS-8] No helicopter or motor vehicle use would be allowed in the Wild Horse Herd Management Area (March 2 to June 30)—foaling season for wild horses.

There are no exceptions currently identified.

15. [Stip. Code: LS-9] No drilling or development operations activity would be permitted within a one-mile radius of the location listed below, from March 1 to December 1:
Wild Horse Spring; NE1/4SE1/4 sec. 26, T. 10 N., R. 98 W.
Shepherd Spring; SE1/4SE1/4 sec. 8, T. 10 N., R. 98 W.
Coffee Pot Spring; SE1/4NW1/4 sec. 22, T. 11 N., R. 98 W.
Two Bar Spring; SE1/4SW1/4 sec. 35, T. 9 N., R. 99 W.
Dugout Draw Spring; SW1/4SE1/4 sec. 33, T. 10 N., R. 97 W.

This restriction will allow wild horses the uninhibited and undisturbed use of their critical drinking water sources during the period when snow is generally unavailable.

Exception criterion would include provision, by the operator, of an alternate dependable water

source at a suitable location outside the mile radius of the spring prior to the authorized activity. The alternate source shall be installed and properly functioning in a continuous manner for a sufficient time, prior to activity, to allow the wild horses to locate and use the source. No activity will be allowed to commence until this stipulation is completely and satisfactorily complied with. Maintenance would be the sole responsibility of the operator.

Controlled Surface Use

1. [Stip. Code: CO-25] A Controlled Surface Use stipulation will be attached to leases where operations proposed within the area of an approved surface or underground coal mine will be relocated outside the area to be mined or to accommodate room and pillar mining operations. This stipulation may be waived without a plan amendment if the lessee agrees that the drilling of a well will be subject to the following conditions: (1)(a) well must be plugged when the mine approaches within 500 feet of the well and re-entered or re-drilled upon completion of the mining operation; (b) well must be plugged in accordance with Mine Safety and Health Administration (formerly Mine Enforcement and Safety Administration) Informational Report 1052; (c) operator will provide accurate location of where the casing intercepts the coal by providing a directional and deviation survey of the well to the coal operator; or (2) relocate well into a permanent pillar or outside the area to be mined. A suspension of operations and production will be considered when the well is plugged and a new well is to be drilled after mining operations move through the location.

2. [Stip. Code: CO-26] Fragile Soil Areas. Prior to surface disturbance of fragile soils, it must be demonstrated to the Authorized Officer through a plan of development that the following performance objectives will be met.

Performance Objectives:

- I. Maintain the soil productivity of the site.
- II. Protect off-site areas by preventing accelerated soil erosion (such as landsliding, gullyng, rilling, piping, etc.) from occurring.
- III. Protect water quality and quantity of adjacent surface and groundwater sources.
- IV. Select the best possible site for development in order to prevent impacts to the soil and water resources.

Fragile soil areas, in which the performance objective will be enforced, are defined as follows:

- a. Areas rated as highly or severely erodible by wind or water, as described by the Soil Conservation Service in the Area Soil Survey Report or as described by on-site inspection.
- b. Areas with slopes greater than or equal to 35 percent, if they also have one of the following soil characteristics: (1) a surface texture that is sand, loamy sand, very fine sandy loam, fine sandy loam, silty clay or clay; (2) a depth to bedrock that is less than 20 inches; (3) an erosion condition that is rated as poor; or (4) a K factor of greater than 0.32.

Performance Standards:

- I. All sediments generated from the surface-disturbing activity will be retained on site.
- II. Vehicle use would be limited to existing roads and trails.
- III. All new permanent roads would be built to meet primary road standards (BLM standards) and their location approved by the Authorized Officer. For oil and gas purposes, permanent roads are those used for production.

IV. All geophysical and geochemical exploration would be conducted by helicopter, horse-back, on foot, or from existing roads.

V. Any sediment control structures, reserve pits, or disposal pits would be designed to contain a 100-year, 6-hour storm event. Storage volumes within these structures would have a design life of 25 years.

VI. Before reserve pits and production pits would be reclaimed, all residue would be removed and trucked off-site to an approved disposal site.

VII. Reclamation of disturbed surfaces would be initiated before November 1 each year.

VIII. All reclamation plans would be approved by the Authorized Officer in advance and might require an increase in the bond.

3. [Stip. Code: CO-27] Prior to surface disturbance on slopes of, or greater than, 40 percent, an engineering/reclamation plan must be approved by the Authorized Officer. Such plans must demonstrate how the following will be accomplished:

- a. Site productivity will be restored.
- b. Surface runoff will be adequately controlled.
- c. Off-site areas will be protected from accelerated erosion such as drilling, gullyng, piping, and mass wasting.
- d. Surface-disturbing activities will not be conducted during extended wet periods.
- e. Construction will not be allowed when soils are frozen.

4. [Stip. Code: CO-28] For the protection of perennial water impoundments and streams, and/or riparian/wetland vegetation zones, activities associated with oil and gas exploration and

development including roads, transmission lines, and storage facilities are restricted to an area beyond the riparian vegetation zone.

Exceptions: This stipulation may be excepted subject to an on-site impact analysis with consideration given to degree of slope, soils, importance to the amount and type of wildlife and fish use, water quality, and other related resource values.

This stipulation will not be applied where the Authorized Officer determines that relocation up to 200 meters can be applied to protect the riparian system during well siting.

5. [Stip. Code: LS-10] Irish Canyon ACEC. Inventory for sensitive plant and remnant vegetation associations will be required. Sensitive plants and associations identified will be avoided. Known geologic values and cultural resources will be avoided.

There are no exceptions currently identified.

6. [Stip. Code: LS-11] Lookout Mountain ACEC. Inventory for sensitive plant and remnant vegetation associations will be required. Sensitive plants and associations identified will be avoided.

There are no exceptions currently identified.

Lease Notices

1. [Stip. Code: CO-29] Surface-disturbing activities in Class I and II Paleontological Areas will have an inventory performed by an accredited paleontologist approved by the Authorized Officer.

2. [Stip. Code: CO-30] In order to protect nesting grouse species, surface-disturbing activities proposed during the period between March 1 and June 30 will be relocated, consistent with lease rights granted and section 6 of standard lease terms, out of grouse nesting habitat.

Sage grouse nesting habitat is described as sage stands with sagebrush plants between 30 and 100 centimeters in height and a mean canopy cover between 15 and 40 percent.

Greater prairie chicken nesting habitat is described as tall to mid-grass communities with a mean height density index of 5.85 decimeters with 11 percent bare ground and an average height of sandsage at 84 centimeters; grasses 111 centimeters; and forbs 83 centimeters. (Nesting occurs within an average distance of 2.4 km of a lek.)

Lesser prairie chicken nesting habitat is described as short-mid grass and sandsage communities with a mean height density index of 3.5 decimeters with an average grass canopy coverage of 30 percent and 7 percent sandsage. The predominate plant associated with nesting cover is sandsage with an average height of 40-50 centimeters. (Nesting occurs within an average distance of 1.8 km [.2 to 4.8 km] of the lek site.)

Sharptail grouse nesting habitat is described as mountain shrub communities with a density of shrub plants from 1,700 to 32,000 shrubs per hectare and average shrub height of 30 centimeters. Nests are found primarily in shrub clumps where the shrubs are taller than average. (Nesting occurs within an average distance of 2 km of a lek.)

3. [Stip. Code: CO-31] Sensitive Species Areas: In areas of known or suspected habitat of sensitive plant or animal species, and high priority remnant vegetation associations, a biological and/or botanical inventory may be required prior to approval of operations. The inventory would be used to prepare mitigative measures (consistent with lease rights granted) to reduce the impacts of surface disturbance to the sensitive plant or animal species. These mitigative measures may include (but, are not limited to) relocation of roads, pads, pipelines, and other facilities, and fencing operations or habitat.

4. [Stip. Code: LS-12] Exploration (including seismic exploration, drilling, or other development or production activity) will generally not be allowed on sheep lambing grounds during lambing activity. Lambing activities usually fall between April 10 and June 30 and last for approximately six weeks. Dates for the six-week closure will be determined for each operation as local conditions dictate.

5. [Stip. Code: LS-13] Prairie dog complexes are being evaluated to determine their habitat suitability for potential reintroduction of the federally endangered black-footed ferret. No surface-disturbance activities will be allowed that may significantly alter the prairie dog complex making it unsuitable for reintroduction of the black-footed ferret. Search guidelines developed by the U. S. Fish and Wildlife Service to determine the presence of the black-footed ferret will continue to be required under Section 7 Consultation requirements.

In areas where recovery actions for the black-footed ferret are likely to occur, the following guidelines will be used to assist in coordinating recovery efforts where petroleum development is proposed or currently exist. These guidelines were developed by the U.S. Fish and Wildlife Service, Denver Regional Office, Colorado, as a draft document titled, *Guidelines for Oil and Gas Activities in Prairie Dog Ecosystems Managed for Black-footed Ferret Recovery*, February 1990.

- a. Petroleum operations and servicing personnel should receive information and instructions about black-footed ferret natural history and its recovery program to encourage an understanding of the significance of the recovery effort to the species' survival and recovery.
- b. New power lines through the recovery management area should be buried or designed to preclude use as hunting perches by raptor species such as great horned owls, ferruginous

hawks, and golden eagles. Buried power lines should be planned like pipelines as confined to corridors in ecologically less desirable areas outside of prairie dog colonies.

c. Petroleum development in or near prairie dog colonies occupied by ferrets through recovery efforts should avoid, whenever possible, the period between March 1 to August 31 to avoid impacts to ferrets during breeding, gestation, and weaning periods.

d. Management agencies, landowners, petroleum companies, and other involved agencies should be included early in general field evaluations and planning activities for petroleum developments. This cooperative effort will result in the development and approval of a Surface Use Plan of Operation that will identify the necessary permits, schedule, and activities commencing development operations.

e. Proposed developments should be designed to avoid any unpermitted taking of black-footed ferrets. In any case where harm or taking of ferrets is deemed possible by the U.S. Fish and Wildlife Service or the Colorado Division of Wildlife, a permit is required to be issued by these agencies.

f. Whenever proposed petroleum developments cannot be designed to avoid adverse impacts to black-footed ferret or their habitat (components of the prairie dog ecosystem important to ferrets), a compensation plan should be cooperatively developed and agreed to by the petroleum company proposing the development and the land management agency and other cooperating agencies and affected landowners.

CONDITIONS OF APPROVAL

Mitigation Authority: The lease "granting clause" and Section 6 of Oil and Gas Lease Form (see page C-1 of the final EIS).

Post-lease operations proposals are reviewed to ensure conformance with the plan. The mitigative measures listed in Appendices D and F of the *Colorado Oil and Gas Leasing and Development Plan Amendment and Final Environmental Impact Statement* (January 1991) represent the post-lease environmental protection to which the BLM is committed. Note that there is no commitment to the specific wording of a listed Condition of Approval (COA), but rather to the level of impact protection implied in the COA.

The listed mitigative measures apply to all oil and gas exploration and development activities and associated rights-of-way as applicable. The Authorized Officer will choose among these measures at the field development stage to mitigate or avoid environmental impacts identified on a site-specific basis. When attached to an approval document, the measures are known as COAs. The Authorized Officer is not limited to the list of COAs shown in the referenced appendices, but may develop others as the potential for local impacts is identified at the time of a site-specific proposal so long as the new COAs conform with the limitations of the granted lease rights and the guidance set forth in this plan and subsequent amendments.

COAs are not added to applications if they are unnecessary (do not apply to the case in question) or, are duplicative, as when the mitigative measure is already incorporated in the operator's submittal.

APPENDIX B

Changes Made to Leasing Stipulations Between the Draft and Final Plan Amendment/EIS

No Surface Occupancy (NSO) Stipulations Added or Changed in the Final

1. Coal mines will be protected where development would be incompatible with the planned coal extraction by the use of a No Surface Occupancy stipulation within the area of the coal lease. This stipulation was added to the Final EIS after additional analysis arising from comments made to the Draft EIS by federal coal lease operators.

2. Raptors were grouped together for protection by a single No Surface Occupancy stipulation in the Final EIS (expansion of the golden eagle stip in the Draft). This stipulation replaced the NSO stipulations for prairie falcon and golden eagles in the Draft EIS. In addition to prairie falcons and golden eagles, this stipulation will now also protect ospreys, accipiters, owls, butteos and falcons (except kestrels). Peregrine falcons and bald eagles are protected by separate NSO stipulations.

3. Mexican spotted owls were being considered for listing as an endangered species when the Final EIS was being prepared. For that reason, a No Surface Occupancy stipulation was developed to protect the owl until more could be found out about the bird and its endangerment. At the time of preparation of this ROD, there are no Mexican spotted owls known in the Little Snake Resource Area. This stipulation will only be applied in the Little Snake Resource Area should owls be detected in future.

4. The Waterfowl and Shorebirds No Surface Occupancy stipulation was extended to all five Resource Areas in the Final EIS after publication of the stipulation in the Kremmling Resource Area section of the Draft EIS. Upon review, the other four Resource Areas determined they had similar needs for waterfowl protection.

5. The Special Status Plant Species NSO stipulation was added between Draft and Final in response to comments from the U. S. Fish and Wildlife Service. Many special status plants are protected by NSO stipulations within special management areas such as ACECs. However, special status plant communities of significant size may be identified outside those areas. This stipulation will allow protection of those plants.

Timing Limitation Stipulations Added or Changed in the Final

6. Big Game Birthing Areas (elk, antelope, Rocky Mountain bighorn, and desert bighorn) are protected in the Final EIS with a Timing Limitation stipulation. The stipulation was created from several birthing stipulations in different Resource Areas to provide uniform protection throughout the five planning areas.

7. White pelican have spread to several resource areas in Colorado. By adding a timing limitation stipulation to all five resource areas, their nesting and feeding habitat may be protected wherever needed.

8. Mexican spotted owl were proposed for listing in the spring of 1991. The BLM knew of the proposal at the time the Final EIS was in preparation and added a Timing Limitation stipulation to protect the species whether it is listed as endangered or as some other category of sensitive species. This stipulation was also edited for clarity prior to the drafting of this Record. There are presently no Mexican spotted owls identified in Little Snake Resource Area.

Controlled Surface Use Stipulations Added in Final

9. Coal mines will be protected with a Controlled Surface Use stipulation within the coal lease where compatible oil and gas operations may be sighted on the coal lease. This stipulation was added to the Final EIS after additional analysis arising from comments made to the Draft EIS by federal coal lease operators.

10. The Steep Slope (>40%) Controlled Surface Use stipulation was added to insure protection of steep slopes that may not be protected by other stipulations (notably the Fragile Soil stipulation).

11. Riparian/Wetland Vegetation Zone Controlled Surface Use stipulation was extended to all five Resource Areas in the Final EIS after appearing in the Kremmling Resource Area section of the Draft EIS as protection for waterfowl and shorebirds. This stipulation will protect habitat along with the "Waterfowl and Shorebird No Surface Occupancy" stipulation shown above (See the additional discussion of riparian and wetland protection in relationship to Comment 63 of the Final Plan Amendment/EIS below in Appendix C).

Leasing Stipulations Dropped Between Draft and Final

Two changes between the Draft and Final EIS merit a special discussion. The changes concern: 1) the method of protection for crucial

wildlife habitat in Glenwood Springs Resource Area, and 2) sage grouse habitat in all five Resource Areas.

12. The habitat compensation stipulation in the Draft EIS was not part of the LSRA Amendment. Since it was discussed in the Draft EIS, and the mitigation involved with that proposed stipulation has been in use for many years in the Little Snake Resource Area, the change made in the Final EIS to the administration of the mitigation is discussed below.

The term "compensation," as applied in the Glenwood Springs Resource Area's stipulation (page E-9, Draft EIS), was used in the sense of redress, counteracting, or offsetting. At no time was this term intended to be interpreted as payment, recompensation, or reimbursement. We are committed to, by the methods described in this document, offset or counteract the adverse effects of oil and gas development to crucial wildlife habitat. It was partly this confusion in language that caused the deletion of the stipulation. But, mostly it was dropped because the mitigation envisioned in the stipulation has long been a part of routine oil and gas mitigation applied during the on-site analysis process.

The paragraph describing the methods that would be used to offset impacts to wildlife habitat in the Draft EIS was omitted from the Final EIS when it was decided to delete the stipulation. We are of the opinion that adequate authority exists in the standard terms of the lease form to impose all of the methods described in that paragraph without special lease stipulations. Many actions can be taken by Area Managers without special lease stipulations. These can range from prescribed burns, sagebrush rotochopping, fertilization of various browse species, to dozing or chaining and seeding of closed canopy pinyon-juniper stands (as discussed in the Draft EIS, page 4-3). These actions may be taken as a result of the environmental analysis prepared for each Application for

Permit to Drill. These environmental analyses range from simple environmental assessments to full EIS's.

13. We believe that the majority of sage grouse nesting habitat on public lands in Colorado can be described as discontinuous stands of sagebrush whose areal extent does not exceed 200 meters in radius. Therefore, a COA was substituted for the original lease stipulation concerning sage grouse habitat (see Appendix B for specific language of the COA). This method of protection will minimize the number of exceptions that would have been granted under the one-mile limitation proposed in the draft document. In those areas where suitable habitat is continuous, we believe that since the adjacent habitat is unoccupied, sage grouse can utilize other areas of the continuous stand of suitable sagebrush. We have found that it is possible to locate surface-disturbing activities within one mile of a lek in non-nesting habitat which avoids direct impact to nesting sage grouse. We believe that this technique will better serve the public interest. As is standard operating procedure since approval of the original RMP, Area Managers will monitor the effectiveness of this procedure, as well as the effectiveness of all the stipulations and COAs. As with all mitigative measures, should the procedure prove to be ineffective, this issue will be revisited.

We recognize that the method proposed is different than the method of protecting sage grouse habitat in other areas. However, we believe that replacement of the sage grouse nesting habitat lease stipulation with the COA discussed above, actually extends the effective distance of protection from a sage grouse lek for this habitat. The COA would apply where suitable habitat is located more than one mile from the lek. From the above discussion, it should be clear that the degree of protection is at least equivalent, but the method used to achieve the protection is different.

APPENDIX C

ERRATA SHEET

"COLORADO OIL AND GAS LEASING AND DEVELOPMENT FINAL ENVIRONMENTAL IMPACT STATEMENT," January, 1991

1. Page 2-5: Top paragraph of right-hand column; The list of Tables should read "Tables 2-3, 2-6, 2-9, 2-12 and 2-15."
2. Page 2-29: "Windy Gap RMA" RMA should be RNA for Research Natural Area.
3. Page 3-11: Table 3-5, last line, "OCCURRENCE" should include LSRA, KRA.
4. Page 4-17: The acreage figures in the last paragraph of the first column should be 274 and 67 respectively.
5. Page 5-16: Comment Number 63. The Response should read, "No potential significant impacts to loss of mountain shrub habitat were identified. Mountain shrub habitat is included in several special management areas that do carry a NSO stipulation for the protection of other resources."

"The riparian/wetland stipulation found in Appendix E, page E-10, will allow the movement of proposed oil and gas operations up to 656 feet (200 meters). Riparian areas in Colorado are such that a movement of that magnitude will take a proposed operation out of the riparian/wetland vegetation zone. Rivers with riparian zones wider than 1,300 feet, such as the Colorado River in Glenwood Springs, are protected by a special NSO stipulation."